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NARRATIVE SECTION INSECT CONTROL REPORT

Brief History

Following are a few highlights of the bark beetle epidemic on the Targhee National Forest:

1945: Targhee advised of bark beetle epidemic on Caribou National Forest. All rangers and field men were alerted and asked to keep a sharp lookout for beetle work during their field inspections. An area in the head of Elk Creek on the Swan Valley District was observed to be infested. A survey of this area was made and it was found to be in an endemic condition. A few infested trees were observed within the Hawley Gulch Working Circle near Hawley Gulch Ranger Station. These were treated by Ranger Foulger.

1946: Widely scattered new attacks were observed during the field season by the rangers on the Heise, Victor and Swan Valley districts. Further investigation clearly indicated the need for an extensive insect survey and funds were obtained for this work. The survey was made during October with forest personnel under the supervision of Lowell Woods. The results of the survey were 30,600 new attacks over approximately 32,300 acres of Lodgepole pine host type. During the winter, estimates and plans were made for control work to be done during the spring of 1947.

1947: On May 3, funds were allotted for control work and the job got under way immediately. Because of reduced appropriations, the overall strategy for the control work was revised and the following priority for work units established: The Hawley Gulch unit and South Victor unit would receive first priority. After the control work was completed in these units, we were to work as much of the Pine Creek unit as time and money permitted. This meant that no work would be done on the Swan Valley unit and only a portion of the Pine Creek unit would be worked. This plan was followed and resulted in treating 21,116 trees on 21,093 acres. Even though all of the known investation was not treated, the control work was considered by the Bureau of Entomology as being successful as it reduced the potential threat of a serious epidemic that would have unquestionably resulted. Throughout the 1947 insect control program the methods employed in treating the trees were felling and burning and felling and sprinkling with an ortho mix. This method, while very thorough, was very costly and slow.

In the fall of 1947, the Bureau of Entomology conducted an insect survey of all the known areas of infestation in the Swan Valley, Victor and Pine Creek areas and the forest conducted a survey of the Hawley Gulch Working

Circle. The results of this survey showed that on 40,400 acres there were 32,060 new attacks. Immediately following the survey, a small control program was carried on in the south end of Teton Basin and 1360 trees were treated that fall.

Control Plans 1948

During the spring, detailed plans were made for the 1948 bark beetle control work. Sufficient funds were appropriated to allow treating all known areas of infestation and this plan was followed. Because of accessibility, it was decided to have the Teton Forest work the areas in upper Elk Creek, Dog Creek and Cabin Creek. These areas were adjacent to the Teton's Dog Creek camp and could be worked more efficiently from there. This reduced the control work for the Targhee from 40,400 acres of host type to 32,600 acres and the estimated number of new attacks from 32,060 to 27,015.

In the initial control plans, the area to be worked was divided into camp units sufficiently large to fully employ about 25 men for the probable working season of May 3 to July 10. The size of the area was determined by the acreage that it was possible to cover with one six man spotting crew. The number of treating crews assigned to each camp depended upon the intensity of the infestation and the number required to keep up with the spotters. The size of the treating crew was built around the minimum number of men required to operate and supply with oil the new power pumps that were developed by Terrell for spraying the trees standing.

From the above planning, we set up seven camps for the following work units: Hawley Gulch, Hinckley Creek, Canyon Creek, Mud Springs, Victor front, Pine Creek and Swan Valley. As the project progressed and additional scouting was done, considerably more acres of infested host type were discovered in Pine Creek and Rainey Creek which required the setting up of three more camps, two in North Pine Creek and one in West Pine Creek. In addition, we set up three spike camps to reduce ineffective travel time.

During the forepart of the season, an extremely late spring and adverse snow conditions altered our plans so that we were able to start work in only two of the seven camp units by May 3. We were two to four weeks late in getting started on the other five units. During the third week in May, we had 30 inches of new snow fall at the Hawley Gulch and Victor Camps. This adverse weather during the forepart of the job was partially offset by exceptionally favorable weather during the latter part of the project.

The results of the 1948 program were 53,527 acres of host type covered and 52,129 trees treated. Detailed statistical data of the control program for each camp unit are listed separately in this report.

Personnel

Due to the size of the insect control project and the limited time available for the control work, it was given Number 1 priority by the Chief for overhead personnel and equipment needs. Splendid cooperation was extended by the Regional Forester and all his staff in assigning competent overhead and obtaining equipment and supplies needed. Supervisor Daugherty followed the same policy and assigned a large percent of all the regular forest personnel and guards to the job. Without such outstanding cooperation and positive assistance from top management, I am sure the project could never have been successful. Following is a list of the personnel from other forests who were detailed to the Targhee Insect Control Project and a short discussion on their assignment while on the job:

Boyle, Elmer - Period of detail April 28 to July 22. During the forepart of the project, Boyle worked as Check Spotter on the entire project. In this assignment he circulated between all camps and checked on the spotting work. He also spent considerable time at the start of the job in helping to train the spotting crews. His position was that of a functional staff officer working directly under the project superintendent but reporting to the various camp bosses when inspecting the spotting work in that camp. Boyle was well qualified for this type of assignment and did a very good job. The last three weeks of the job he was placed in charge of a 30 man camp working in the Pine Creek area.

Barr, John M. - Period of detail May 3 to July 12. While on this assignment, Barr worked in the St. Anthony office under the administrative assistant payrolling and handling employment forms for personnel working on the insect control project. All time schedules were meet for this type of work and an exceptionally good job was done.

Burnett, Raymond - Period of detail July 14 to July 30. Burnett was sent to the Targhee from the Regional Office to replace Barr who was called back to the Nevada for fire.

Crawford, J. Norell - Period of detail May 13 to July 22. Crawford was detailed to the insect control work from the Salt Lake Base Shop to work with the mechanic on preventative maintenance and repair work on all automotive and insect control equipment. All repairs, greasing, servicing and other equipment work was done in the field. The mechanics traveled between the camps.

Davis, William - Davis had been an old time guard on the Payette Forest and was loaned to us for the insect control work. He was assigned to the Hinckley Creek camp as Foreman on the treating work.

Hyatt, Melvin T. - Period of detail April 27 to July 17. During May, Hyatt was assigned to the Victor Camp as Chief Spotter in charge of a six man spotting crew. The first of June, he was placed in charge of a 30 man camp in West Pine Creek and did an exceptionally good job.

Hufstetler, E. W. - Period of detail May 13 to July 31. Hufstetler was detailed to the insect control work from the Salt Lake Base Shop as project mechanic. He circulated among all of the camps and handled all of the automotive repair work as well as the repair work on the insect control equipment.

Moran, Wendell - Period of detail April 28 to July 17. During Moran's detail to the Targhee he was placed in charge of a 30 man camp at Mud Springs. After the control work was done in this unit, he moved his camp into North Pine Creek during the last two weeks of the job.

McNaughton, Finley H. - Period of detail April 28 to July 17. During the first three weeks in May, McNaughton was assigned to the Pine Creek Camp as a Chief Spotter in charge of a six man spotting crew. On May 27, he was placed in charge of a 25 man camp in Canyon Creek. The record for this camp was very good.

Mattsson, Wayland - Period of detail April 27 to July 3. During the forepart of Mattsson's detail to the Targhee his assignment was that of Safety and Training Officer, a functional staff position under the Project Superintendent. Wide latitude in planning and executing a down-to-earth safety program was given and excellent results were obtained. The position required traveling between all the camps making hazard inspections and setting up a safety program in each camp with the workers participating in the program. During the last two weeks of Mattsson's detail, he was placed in charge of the treating work in the Pine Creek Camp.

Middleton, Charles - Period of detail April 30 to July 15. Middleton was one of the old time guards on the Payette and was loaned to the Targhee for the insect control work. He was assigned to the Hawley Gulch Camp as Foreman under Ranger Foulger and was in charge of two to four treating crews. This was Middleton's second year on insect control work.

Phillips, Thomas A. - Period of detail July 5 to July 17. Phillips was assigned to the Targhee job after the Teton work was completed. While he was on the Targhee, he worked as Treating Foreman under Ranger Leo Fest in the Pine Creek area.

Rowland, Dean C. - Period of detail April 26 to July 14. During the forepart of Rowland's detail to the Targhee he was placed in charge of a six man spotting crew in the Alpine Camp. As the spotting work progressed, he was given the added responsibility of scouting and planning the spotting work for the isolated patches of timber on the Swan Valley District. When the formal spotting work was completed, Rowland handled the treating work in the Tie Canyon and Rainey Creek areas. Rowland is very competent and did a very excellent job.

Taylor, Elmer - Period of detail April 28 to July 17. During Taylor's detail to the Targhee, he was assigned the Foreman's job at the Mud

Springs Camp under Wendell Moran. Taylor was one of the outstanding foremen on the project. He has had considerable experience on insect control work and always does an exceptionally good job of handling men and getting results.

Ralph, Horace - Period of detail April 28 to July 10. After attending the initial training camp, Ralph returned to Ogden because of illness and reported back to the Targhee May 22. He was placed in charge of a 30 man camp at Hinckley Creek. The progress record and safety record for this camp was above average for the project.

Williams, Grant - Period of detail May 25 to July 15. During Williams detail to the insect control work, he was assigned to the Hinckley Creek Camp as Chief Spotter in charge of a 6 man spotting crew. In this capacity, Williams did a very acceptable job. During the last two weeks of work, he was changed to the treating work and was put in charge of two to four treating crews.

The men listed above who were detailed to the Targhee from other forests all did an exceptionally good job in their respective assignments. At no time did any of them complain or become dissatisfied. They all had a lot of enthusiasm for the job and worked like it was on their own units. Special recognition for their outstanding work was well earned. Personal letters of thanks were sent to each detailer and his respective forest.

The following Targhee Forest personnel were assigned to the insect control work full time and remained throughout the entire job. Their assignments while on this work were as follows:

Dunn, Harry - Dunn is one of our older guards on the forest and is regularly assigned to the Spencer District. While on the insect control work, he was assigned the job of Supply Officer at the Hawley Gulch base camp. Dunn, because of his past experience in stores and commissaries, is especially well qualified for this type of work. He handled the distribution of subsistence supplies and insect control equipment out of the Heise warehouse and also acted as procurement officer for the perishable grocery items for which bids were not received. He supplied the four camps in the Hawley Gulch Working Circle and the Swan Valley Camp. He also handled the mixing station at Hawley Gulch.

Foulger, Howard - Ranger on the Heise District. During the insect control program, Foulger was assigned to the Hawley Gulch Camp as Camp Boss. In addition, he recruited the bulk of the personnel for the Hawley, Hinckley, Mud Springs and Canyon Creek Camps. He also handled the oil mixing station at Hawley Gulch and distributed the ortho mix to the four camps on the Heise District. This is Foulger's second year on insect control work and he is well qualified to handle camps of 25 to 100 men.

Fest, Leo - Ranger on the Swan Valley District. Fest was placed in charge of the Alpine Camp during the forepart of the program and was later moved into the Pine Creek area when the work was completed at the Alpine Camp. This was Fest's first year on insect control work and he did a very good job.

Johnson, Rulon - Guard on the Heise Ranger District. This was Johnson's second year on insect control work. His assignment included many different jobs such as camp construction, warehousing, truck driving, and working as a treating strawboss. His versitility on this kind of work makes Johnson a valuable man.

Knotwell, Joe - Guard at Kilgore on the Spencer Ranger District. This was Knotwell's second year on the insect control work as Chief Spotter in charge of a six man spotting crew at the Hawley Gulch Camp. He is well qualified for the work and did an exceptionally good job. During the last two weeks, he was placed in charge of two treating crews.

Melvin, C. R. - Timber Staff Man at St. Anthony office. During his assignment to the insect control work, he was placed in charge of the treating work. In this position he circulated between all of the camps and treating crews checking on and training for the treating work. In addition, he was assigned several large administrative jobs in connection with the shifting and reorganization of the additional camps that were established in the Pine Creek area. This was Melvin's first year on insect control work and his assignments were planned so as to give him actual experience in all phases of the insect control work. The results obtained in these special assignments indicate his ability to handle a large insect control project.

Mueller, Waldemar - Ranger on the Rapid Creek District. Mueller was placed in charge of the North Pine Creek Camp. This was his second year on insect control work and he again did an exceptionally good job. When the control work was completed in North Pine Creek, he moved his entire camp into the Island Park area to clean up a isolated "hotspot" of about 1000 trees.

Richins, Alma - Guard on the Victor District. Richins worked out of the Victor Camp and handled the supplies and warehousing for the camps in the Victor and Pine Creek areas. He also assisted in recruitment of personnel and the hiring of horses.

Taylor, Ernest - Ranger on the Victor District. Taylor was placed in charge of the Victor Camp. In addition, he handled the recruitment of personnel from the Teton Basin area. He also handled the oil mixing station at the Victor Camp which supplied all of the ortho mix used in the Victor and Pine Creek areas. This was Taylor's second year on insect control work and as usual he did an outstanding job. Taylor is well qualified to handle camps of 25 to 100 men.

Woods, Lowell G. - Assistant Forest Supervisor. Assigned to the Insect Control work as Project Superintendent.

In order to handle the clerical overload caused by the insect control project, it was necessary to assign a large part of it to the regular office personnel.

Baldwin, Clarence - Assisted with payrolling, vouchering, personnel records, accounts and property. All deadlines were meet and reports were submitted on time. Baldwin's pleasant personality and cooperativeness were greatly appreciated.

Petersen, Glenn - Petersen was given the full responsibility for all the clerical work connected with the project. Approximately 50% of the clerical work required for the job was absorbed by Petersen and his staff. An outstanding job was done. It represented many hours of uncompensated overtime. Pete deserves a lot of credit for this fine job.

Local Labor

This year practically all of the labor recruited for the insect control work was obtained from the small communities surrounding the forest. A few were obtained from southern Idaho towns between Pocatello and Twin Falls and a few from Ogden and Salt Lake City. In general, we had very little turnover as compared to a year ago and the men were a better class of workmen. A large number of them remained with the job throughout. We were very fortunate in placing or locating jobs for practically all of the men who wanted work after the bug job was completed. This should help a lot in recruiting men another year for forest project work. During the job we developed about 10 men for Chief Spotter and Foreman positions. It is possible that several of these men will be available for insect control work another year.

There are a lot of advantages in using men in camps that are close enough to their homes so they are able to return over the weekend. These men were found to be more satisfied, generally better workmen, and stayed until the job was completed. A number of men were employed from Teton Basin who did not remain in camp but drove back and forth from their homes. When such an arrangement was possible, we were able to obtain very good men that could not have otherwise been hired as they had chores to attend to on their small farms in the Valley.

Training

Perhaps one of the most important phases of an insect control project is the training that is given the personnel used. Most men want to do a good job and most men will do a good job if they know how. Our job then is to train them in the job we want done and in the way we want it done. The importance of this cannot be overstressed. It

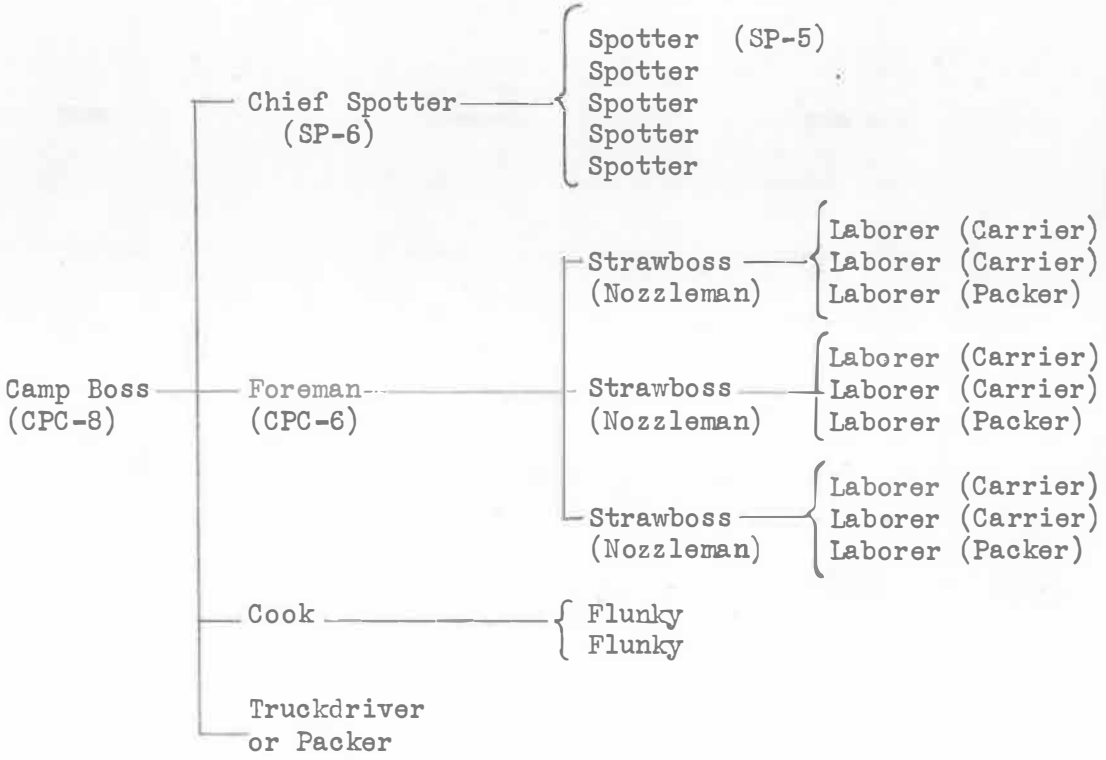
was my observation throughout the insect control program that whenever failures occurred they could generally be traced back to inadequate training. Too often we get so busy with our work that we don't fully appreciate the importance of adequate training to the new recruits after our initial training camps have been completed. This problem was recognized and provisions were made for training the men employed. However, more should be done in the future.

This spring, the training camp for Chief Spotters and Treating Foremen was held on the Teton for all personnel used on the four forests. While this camp was very successful, I believe that we overlooked the many advantages of holding the training with smaller groups of trainees. Perhaps it should be done by each forest rather than attempting a large training school for all the forests.

Organization

In setting up the organization for the insect control project, Supervisor Daugherty was very specific in advising that while the project was to be handled by the forest I was to be given full authority and responsibility for the job and that he would assist in any way possible. He asked to be currently advised of the progress being made in each camp and to review, from time to time, the general organization and strategy being employed. He made it clear that the personnel and equipment on the forest would be made available if needed. This plan of operation was followed and excellent working relations were maintained at all times.

The following pattern was suggested for the individual camp organization. This was followed in the initial setup but was altered during the latter part of the project after we started using the Dobbins or Stirrup Pumps.



The number of treating crews assigned to each camp would vary with the intensity of the infestation. In the light infestation, two treating crews could keep up with one spotting crew. In the heavier infestation that ran from 1 to 3 or 4 bug trees per acre four or five treating crews were required.

The size of the area assigned to each camp was based on the probable acreage that could be covered by one spotting crew in the time available for control work. This was computed at 100 acres per spotting crew day or 20 acres per man day. Our original plan was to start spotting work by May 3 on all units and complete the spotting work by July 3. This procedure established work units of 5000 to 6000 acres each. Because of adverse snow conditions, it was not possible to start on some of the units until two or three weeks later than expected. This necessitated the recruitment of more spotting crews. Also, when additional acreage of host type was discovered we had to adjust the organization accordingly.

Working under the Project Superintendent but spending full time circulating between the camps were three functional staff assistants whose specific duties were as follows:

(1) A Safety and Training Officer who was given full responsibility to organize and put into effect a sound, down-to-earth safety program designed to obtain participation from the workmen themselves. His other duties were to make safety hazard inspections at all the camps and with all the crews and then follow up on all safety deficiencies found to see that they were corrected.

(2) A Check Spotter whose duties were to check on the spotting work done at all the camps and to assist in training new spotting crews as they were recruited. After the spotting work was well organized and functioning properly this position was discontinued and the officer was used on other work.

(3) A Check Treater whose duties were to check on the treating work done at all the camps. He checked on each individual treating crew to see they were following approved methods in spraying the trees with ortho. He also functioned as a training officer in the treating work. Whenever crews were found doing poor or below standard work he would effect corrective action through the Camp Boss.

One Mechanic with a helper was assigned to the project from the Salt Lake Base Repair Shop. These men handled all the repair work, preventive maintenance, lubrication and servicing on all the automotive equipment and insect control equipment. They would circulate between the camps and do all the service and repair work in the field. This arrangement worked very satisfactorily and they were able to keep all units in operation with a minimum of lost time or ineffective travel into base repair shops.

Instructions to Project Personnel.

Following are several sets of instructions to project personnel which are inserted here for ready reference. Instructions of this nature will vary with each year's operation and will need annual revision depending upon the scope of the project and methods of treating employed.

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
May 6, 1948

CAMP BOSS - INSECT CONTROL

Instructions and Check List of Duties

The Camp Boss is in full charge of all men and operations in the insect control camp to which he is assigned. He has full responsibility for planning, organizing, and directing the men and activities in his camp. He will work under the Project Superintendent and will report directly to him.

For your convenience we have prepared instructions for your subordinates which may be used in any way you desire to help in informing them of their duties and responsibilities.

As a supervisor of men, it is your responsibility to: 1. Provide all your men with the tools or equipment needed for their job. 2. See that all men are trained and instructed in the use of these tools or equipment. Make sure that you both understand and are in agreement on what is wanted and the standards to which the job is to be done. 3. Follow up with sufficient inspection to determine that the work is being done as directed. Most men will do as good a job as they know how. Also, most men want to do a good job. It's your job to see that they do.

Don't assume your men know all about what you want done or how to do it. Even simple tasks can be dispatched with more efficiency if they are well thought out and organized.

Following is a check list of duties and specific instructions:

I. Camp

1. Construct and operate a clean orderly camp.

2. Look after the general welfare of your men. See that they are made as comfortable as possible under the existing conditions. Arrange their meals on time and see that they are well served.

3. Encourage cleanliness around camp. Provide what is needed. Make it convenient to keep things in place and orderly. Get things started off right and it will assist you throughout the entire project.

4. Follow up on all sanitation requirements.

   a. See that the water supply is safe.
   b. See that the latrine is cleaned daily and sprinkled with Chloride of Lime.

c. Use DDT to keep down the flies.
d. See that your cooks keep the kitchen clean and that dishes are properly washed.
e. Have the men keep their tents clean and orderly.
f. Provide proper garbage disposal facilities.

5. See that food is properly stored. Vegetables should be placed in cooler, meat should be kept in shade and protected from flies.

6. See that the men leave camp on time and are returned on time.

7. Have equipment and tools ready.

8. Plan their work a day ahead so they don't have to wait for your instructions.

II. Records

1. It is suggested that the Chief Spotter and Foreman keep time records for the men working under them. The Camp Boss should keep time records on cooks, truck driver and camp detail. (Special instructions for time reports are provided.)

2. The Camp Boss will maintain a daily progress record on the forms provided. You may require the Chief Spotter to maintain the Spotting record section and the foreman the Treating record section.

3. Each evening you should prepare a daily progress record (small form) and radio this information to Hawley Gulch. Hawley Gulch will transmit the report for all camps to St. Anthony the following morning.

4. Property records will be kept for all equipment received and issued at the camp.

5. Supplies and Equipment.
The Supply Officer at Hawley Gulch (Harry Dunn) will do all the purchasing for the five camps working on the Heise and Swan Valley districts. All orders for subsistence supplies and equipment will be sent him. Ranger Taylor will handle all supplies and equipment for the Victor and Pine Creek camps.

III. Spotting

The work of the spotting crew will be correlated with the treating work. If the spotting crew is unable to keep ahead of the

treaters, arrangements should be made through the project superintendent for shifting spotting crews between camps. Recruiting replacements for the spotting crew will be handled by the camp boss.

The Camp Boss should correlate his inspections of the spotting work with that of the Check Spotter (Elmer Boyle) to avoid unnecessary duplication.

IV. Treating

1. The Camp Boss and Foreman will work together in planning for, organizing and directing the work of the pump crews. Close woods supervision is very essential in the treating work. When burning or spraying, we must be sure all trees receive a thorough treatment. We must insist on A-1 work; to get this will require constant checking.

2. Each day's work for the treating crews must be planned a day ahead to eliminate unnecessary and unproductive travel.

3. The oil supply must be so organized that the pumps are never out of oil. The success of the spraying method and entire project is directly keyed to this one item. We cannot fall down here.

General

Let's not accept any method or procedure that we are now using as being the last word. There may be better ways. If you have any ideas or suggestions, be sure and pass them on to us. If they sound reasonable, we'll try them out. We're always searching for better and cheaper ways to do the job.

You have an important assignment. Records speak for themselves and your record is what you make it. It's a challenge and an opportunity. The Chief Forester is particularly interested in this project this year and has assigned one of his Staff to the insect control program. Let's make sure our report is the best.

/S/ L. G. Woods

Project Superintendent

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
May 5, 1948

SAFETY AND TRAINING OFFICER - INSECT CONTROL

For clarification of responsibility and authority of the Safety and Training Officer assigned to the insect control project, a brief letter describing his position seems desirable.

The Safety and Training Officer will work directly under the project superintendent as a functional staff officer in charge of safety and training. He will be responsible for planning, organizing and directing an active continuing safety program designed to eliminate preventable accidents.

He will have full authority to put into effect any safety practice that is reasonable and included in a down to earth safety program. He will make hazard surveys at all camps and with all crews in the field. The hazards will be listed and notes kept showing what is planned and what was done to eliminate these hazards. Failure on the part of any project personnel to comply with the approved safety program will be cause for personnel action appropriate to the infraction. He will have full authority to stop and correct any unsafe worker or working practice observed.

He will plan and conduct safety training to all the camps and with all personnel. Full cooperation of the Camp Boss in assisting the Safety and Training Officer in an aggressive safety program is expected.

The nature of this assignment requires a high degree of coordination between the direct line organization and the functional staff work. Close working relationship is essential among all if we are to make the program effective and achieve our goal of "No lost time accidents on the Targhee".

Wide latitude will be given the Safety and Training Officer in planning and organizing the safety program. He should take full advantage of mediae available no matter what the source. Employee participation is so fundamental that any effective program must be designed to include the workmen at the lowest levels. Use their ideas insofar as possible. Make it their program and the chance for success will be increased many times.

All Targhee personnel will cooperate 100% from the Supervisor on down. Don't feel reluctant to call on us for any assistance we may be able to give.

/S/ L. G. Woods
Project Superintendent

S
CONTROL
Insects

CHECK SPOTTER - INSECT CONTROL

For clarification of responsibility and authority of the Check Spotter assigned to the insect control project, a brief letter describing this position seems desirable.

The Check Spotter will work directly under the Project Superintendent as a functional staff officer to assist in the spotting work for the entire project. The primary purpose of this position is to relieve, insofar as possible, the Camp Boss from spending an excessive amount of time on the spotting work so that he can concentrate most of his time and energy on the treating operation.

Specifically his duties will be:

1. He will assist in training the spotting crews recruited for each camp.

2. He will conduct a systematic check on the work of all the spotting crews. In this check he will show the length and width of the strip line, the numbers of infested trees missed by the spotting crew and compute the efficiency of the spotting work in percent. Suggestive form for check spotting record:

CAMP _____ DATE _____ INSPECTOR _____

Length of strip checked	Width of strip checked. In Chains	Number of Infested Trees		Efficiency of Crew (Show in percent
		Spotted	Missed	
40	4	65	2	97%

3. After each check spot made, he will make a written report to the Camp Boss and a copy sent the Project Superintendent with appropriate recommendations on his findings. He will circulate among all camps and, if possible, make a spot check each week.

4. He will review the spotting plans for each camp with the Chief Spotter and give any assistance possible in planning the spotting work.

5. He will keep a current record of the spotting work by camps for comparison with the spotting job assigned to the camp. This will make it possible to tell at all times the progress of the spotting work and the chance for completion in the time available.

6. He will scout any questionable areas and advise if 100% spotting is necessary. When 100% spotting is not necessary, he will recommend the spotting procedure appropriate for the specific area.

7. He will scout any areas where it may be feasible to run strip lines and do the spotting work along with the treating by assigning one extra spotter to the crew.

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
May 10, 1948

INSTRUCTIONS FOR CHIEF SPOTTER - INSECT CONTROL

The Chief Spotter will work directly under the camp boss and will be in complete charge of the spotting work in the camp. He will plan, organize and direct the activities of the spotting crew. He will have the responsibility of training all the spotters assigned to him. Any replacements needed should be requested from the camp boss.

He should keep the time records for himself and all members of his crew. He will prepare duplicate spotting records or maps needed in the treating work. He should maintain the daily progress record for the spotting work and keep the camp progress record posted daily.

It will be his responsibility to see that his crew leaves for work on time and is returned promptly after 5:00 P.M.

He should work in close harmony with the camp boss and foreman in planning the work for the camp.

/S/ L. G. Woods

Project Superintendent

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
May 10, 1948

INSTRUCTIONS FOR FOREMAN - INSECT CONTROL

The Foreman will work directly under the camp boss and will be in charge of the three or four treating crews working out of the camp.

His work will be confined primarily to the field, working with and coordinating the work of the individual pump crews. He must see that all treating crews are ready for work on time and that each has their specific instructions for their day's work before leaving camp.

He will plan for and assist in the proper supply of oil for the pump crews. Oil dumps should be located so as to cause the least possible travel by the packers when returning for refills.

He will assist the camp boss and safety officer in conducting an active and continuing safety program. He will keep the daily treating records for all treating crews working under him and keep the camp progress record posted up to date. He should keep the time reports for all personnel in the treating crews daily.

He will work with the camp boss and chief spotter in planning and preparing for the treating work. This will include the daily assignment of the individual crews to their strips or work areas. He will inspect all the work of the treating crews to make sure the trees are properly treated and that no trees are missed.

Additional assignments and instructions will be issued by the camp boss.

/S/ L. G. Woods

Project Superintendent

C O P Y

S
CONTROL
Insects

St. Anthony, Idaho
May 10, 1948

INSTRUCTIONS FOR COOK - INSECT CONTROL

Only one cook will be employed in the camp. He will be directly responsible to the camp boss and will personally direct the work of flunkies. As crew increases, add extra help in way of flunkies rather than an extra cook.

The cook will be responsible for:

1. The arrangement of his kitchen and keeping it clean and providing garbage disposal.

2. Instructing flunkies and assistant cook.

3. Keeping his food supplies ordered through camp boss and properly stored to prevent waste.

4. Having meals ready and lunches put up by time set by camp boss.

5. Arrangements for Sunday meals will be made directly between the cook and the camp boss.

Cook and helpers will serve the food and keep all others except the overhead out of the kitchen.

/S/ L. G. Woods

Project Superintendent

Method of Control

During the winter, Mr. Terrell of the Bureau of Entomology developed a portable motor driven sprayer capable of spraying the trees to a height of 34 feet. This unit could be used for both burning standing or spraying standing. At the beginning of the project, it was decided to spray the trees with fuel oil and burn standing as long as it was safe to burn. After that we were to spray the trees standing with an ortho mix. After a short period of using the first method of burning the trees standing after spraying with oil, we switched to the second method of spraying standing with the ortho. The latter method proved to be quite a lot faster and higher production was obtained.

As the program advanced, a portable hand operated Dobbins sprayer was introduced. This was twice as light as the gasoline pump and just as efficient. Several of these pumps were obtained and used with success. Later a still lighter Stirrup pump was introduced. After these light Stirrup pumps were obtained, practically all of the treating crews switched to this pump because it was light and easy to transport. It was also just as effective in spraying to the height of the infestation. Other advantages of the light Stirrup pump were that it could be operated by two men whereas the gasoline pump required three, it had no temperamental motor that was hard to start and it was many times cheaper.

From the start of the project until the 24th of June, the convential spotting method with a six man crew was used. Production under this method was above the goal of 20 acres per man day. After the 24th of June, we changed the organization for spotting and treating as follows: A spotter was assigned to a three man treating crew and did all the spotting work for that crew. The crew would work in a four chain strip between string lines laid in advance with a compass. Where the timber was dense the spotter would work half of the four chain strip guiding on the string line and when arriving at some natural barrier such as a ridgetop, road or trail would pivot and work the other half back. He would work a little in advance of the treating crew but still close enough to advise and guide them to the trees to be treated. This system worked exceptionally well at this time of year as the trees were well faded and easy to detect. After shifting to this latter method our production stepped up at all camps on a "trees treated per man day basis".

Equipment and Supply

Camps

As we retained the R-1 camp equipment from last year, these camp units were again used. Tent frames with wooden floors were constructed on which the tents were stretched. The R-1 stoves were all replaced with regular kitchen ranges which we assembled from forest stock and temporary transfer. These stoves were much more satisfactory than the R-1 stoves. The mess kitchens were constructed with a wood frame and canvas top. Plastic covered screen was used on the upper side walls to let in more light. This proved to be cheaper than boards and somewhat warmer. Five or six men were assigned to each 14 x 16 sleeping tent.

Vehicles

Ten Weapons Carriers were obtained from temporary army loan. These units are ideal for this type of project. They can be used to transport men, haul oil or any other hauling job where motor transportation is possible. They will negotiate the roughest type of road and saved a lot of time in distributing the oil out to the woods crews. For the heavier hauling jobs along the main roads 1½-ton stake trucks were used. These were obtained from the central equipment pool.

Tractors

The D-7 tractor assigned to the forest was used about 10 days in cleaning out old logging roads and constructing new "jeep trails". Approximately 8½ miles of new road was constructed in North Pine Creek, Tie Canyon, Poison Creek and the Head of Rainey Creek. These roads were very crude and made only where the going was not too rough or rocky. Approximately $78.00 per mile was spent on these roads. Only enough work was done to allow weapons carriers to travel over them.

Subsistence Supplies

The initial order for staple and perishable supplies was obtained through Central Purchase and shipped to Heise and Victor. Warehousing for the camps was then done out of these base supply points. The perishable supplies that could not be obtained under bid procedure were purchased in Idaho Falls from the wholesale houses. Very reasonable prices were obtained. Harry Dunn handled the warehousing of the supplies for the camps on the Hawley Gulch Working Circle and did all the purchasing in Idaho Falls. Alma Richins handled the distribution of supplies for the camps around Victor. This arrangement worked out very well and no difficulties developed.

Safety

This year a more positive approach to the safety program for the insect control work was made by assigning a staff officer full time to the safety job. This was done under the assumption that you have to pay for safety in one way or another. Either you do nothing or very little about safety and you pay for it in accidents or you can finance a reasonable safety program and avoid the accidents. We chose the latter. The goal set up was "No lost time accidents on the project". This goal was luckily reached. Wayland Mattsson was assigned to the project as Safety and Training Officer. Following is his report on this safety program, also copies of special instructions and cartoons developed.

C O P Y

SAFETY PROGRAM ON TARGHEE

Insect Control Project

During the period of April 27 through June 19, 1948, I was assigned as Safety Officer on the Targhee Insect Control Project. The project continued after these dates until about the 20th of July but it was considered that sufficient ground work had been done that the personnel in charge of camps could carry on. Approximately 170 men were distributed in seven camps, Mud Springs, Alpine, Victor, Canyon Creek, Hawley and Hinckley. The safety project was relatively simple, the underlying philosophy was to instill in the men a responsibility and desire to meet certain basic objectives as to their own safety conduct and to share in the success of the program. We endeavored to get away from the philosophy of "Don't" rules and the laying down of a set of hard and fast prohibitions. The program was developed by the employees as their program, not the safety officer's. They made the suggestions and carried them out.

Forest Supervisor Charles Daugherty set down the primary goal - NO LOST TIME ACCIDENTS ON THE PROJECT. I added two more secondary goals to this main one:

EVERY MAN A SAFETY OFFICER
LET'S BEAT THE TETON

I don't think there was a man that did not take these goals seriously. In fact, I doubt if there was a man that would not have reported back to work the next morning after an accident even if he had broken his neck. I never have witnessed such whole-hearted enthusiasm--the idea caught fire and the men carried it on. An injured employee might be granted first aid and fast dispatch to a doctor but the whole camp would feel like giving him a kick in the pants at the same time for jeopardizing their record.

Supervisor Daugherty and Project Superintendent Lowell Woods gave me entire leeway and authority to handle the safety project as I considered best and so informed all the Camp Bosses. Such trust and cooperation did a lot to keep my morale and enthusiasm at a high pitch and seems to me to be a sound fundamental principle in delegation of authority as long as results are satisfactory and the individual so entrusted earnestly endeavors to fulfill his assignments.

In order to get "accident avoidness" down to the grass roots the following general plan of action was followed:

1. The Forest Supervisor wrote a welcoming and introductory letter to every employee setting out the Forest Service traditions of service, conduct and responsibility. This was passed out at the first meeting held with the men and thoroughly enlarged upon.

2. A set of basic safety instructions and "how" to do the job was written covering every phase of the project. These were also distributed to every

man on the project and the foreman discussed more fully the same day right out on the project. (See Samples attached).

3. At each camp the idea of safety evolving from the actual doers of the job was discussed and the following proposed and adopted at each camp: Each treating and spotting crew to elect one of their men (not an overhead man) to represent them on safety and to take a leading part in their behalf. Obviously this was a democratic way since everyone could not be represented and it offered a way to hold down on the number of meetings but gave the men an outlet for all their suggestions. The names of such representatives to be presented to the Camp Boss who would act as chairman but without any more authority than any elected member except in cases of disciplinary or corrective action. These workman committees then formulated their safety rules, inspection practices, times when meetings would be held, etc., and voted on issued as a group. They signed their names to any instructions issued--see sample attached. I did not sign a thing because I wanted these men to assert all the independence and thinking they could with the safety officer just acting in an advisory capacity.

4. Upon visiting a camp I would generally hold a short snappy safety meeting just when the men were ready to go out, then spend the rest of the day actually on the job with them. What really paid dividends in gaining their respect and confidence was the donning of work clothes and jumping in and working just as hard as they did. Getting just as dirty and as much oil on my clothes. After working with them for a couple of hours or more they loosened up and then we would set down for a smoke and discuss how the job was being done and what ways we could improve it. I heard enough comments to know this paid off because when they realized you were just as common as they were, could work just as hard and were not afraid to get dirty, the comradeship developed, engendered free exchange of ideas.

In the evenings then I would hold a short meeting with the committees to help them organize, get their ideas typed up, etc.

5. I promised the boys we would do everything in our power to make living conditions the best possible. A couple of hours was spent at each visit to a camp making a thorough inspection, writing up a report and discussing with the Camp Boss. I continually harped on sanitation, demanding extra clean dishes, good food storage, toilets scrubbed and disinfected, tents clean, no rubbish on grounds, compliance with fire safety installation of stoves, correct location of gasoline storage, etc. Water was tested and samples sent for analysis for each camp and condition of perishable groceries and meat inspected often. The boys kept their living quarters exceptionally clean and liveable. For a while, for example, there was only one broom at the Alpine Camp--it made the rounds of all tents daily and I would not have felt ashamed had the Regional Forester or Chief dropped in to any tent. Even in the tent spike camps as at Canyon Creek, with its dirt floors and dependence on getting most everything packed in there was a high consideration of sanitation.

6. Setting up the reward idea for the camp with the best safety record--getting them competing against each other. This includes points for man days performed with deductions for each minor first aid injury and additional points for tangible contributions to the safety program. At the time of the end of my assignment, the Mud Springs, Hawley and Hinckley Camps had not had even a first aid injury and it looked like they would be able to get through with a perfect record.

7. Issuance of safety cartoons by one of the spotters who showed a remarkable aptitude for such work. The boys really went for these, in fact, a lot went as souvenirs. Perhaps they lacked some of the artistry of highly developed commercial drawings but they were so related to the little simple jobs that it was easy to visualize the lesson contained. (See Samples attached).

8. Issuance of a news letter just accidently suggesting safety. See Edition #1 attached.

9. Inspection of trucks, weapon carriers, tools, etc. Personally riding to and from projects with each driver and if they had not taken the standard driving test, giving it to them.

10. Inspection of packers, their horses and equipment. Following them while they load, and trailed to the project. Watching them unload and how they handled their stock. Noting condition of livestock, oil burns, saddle sores, etc., and what efforts made to keep in good working condition.

11. Active solicitation of the cooperation of the Camp Bosses and Foreman. They were fully behind the program and since they are always on the ground, can do much to keep any program alive.

12. Preparation of written reports on camp and job inspections with a column for action taken. This insured better action and follow-up than just a narrative report suggesting certain things. The Camp Bosses certainly cooperated in getting suggestions made on inspection reports fully complied with. (See Sample attached).

13. Development of the positive rather than the negative approach. Stressing the better, more practical ways of doing a job not necessarily because it cut down on the safety hazards but because it made the job easier or more efficient. We had to climb those hills, take the horses over the snow banks, and carry and lift those pumps and oil over windfalls and get the trees sprayed. If we did it a certain way it was easier on the men and equipment and increased production. The words "Safety" and "Hazard" if continually stressed are disagreeable and irritating as well as rules of "Don't do this or Don't do that". In lieu thereof, the positive way of just improving the lot of everyone by doing jobs a certain way builds up production. There is a real joy in accomplishment and efficiency--I think it's a good thing to stress and to work for safety unconsciously as far as the men are concerned but with just as much insistence since it's just part of their job, like good work, honesty, integrity, etc.

14. Inherently our employees want participation in our common objectives and full facts about the job. They like a say in the project and a sense of belonging and to be treated with respect. In launching the program I did everything in my power to develop this sense of belonging and to build up their feeling of worthwhile accomplishment as week by week went by without lost time accidents. This building up from the bottom of the idea of each man working for and with the others with a common motive was really the crux of the program. They got a satisfaction out of being active participants in our common objective of getting the trees treated safely and efficiently. I think taking advantage of this inner desire of the employee let him escape some of the monotony and frustration common to so many jobs and his close participation in all the actual phases of the job, safety or anything else, makes for increased efficiency and better morale.

/S/ WAYLAND MATTSSON

Safety & Training Officer

Targhee N. F. — PROGRESS RECORD by CAMPS — 1948 Insect Control

	Hawley Gulch	Hinckley Creek	Mud Springs	Canyon Cr.	Victor	Pine Creek	North Pine	West Pine	Corral Creek	Poison Creek	Alpine	Island Park	GRAND TOTAL
Trees Spotted	5613	5181	2716	2446	1842	10011	7458	5468	1167	1781	3950	450	47633
Acres Spotted	10805	4843	6708	2954	9640	6472	3457	1525	1695	616	4358	450	53527
Man Days Spotting	448	156	321½	162	206	292½	155	119	50	47	242		2199
Total Trees Treated	6264	5036	2764	2453	3940	8630	6096	6930	2598	2428	3991	999	52129
Trees burned						240					517		757
Trees treated w/ortho	6264	5036	2764	2453	3940	8390	6096	6930	2598	2428	3474	999	51372
Spotted trees treated	5566	3369	2677	1585	1757	8617	6087	5649	2372	2333	3954		43966
Un-spotted trees treated	698	1667	87	868	2183	13	9	1281	226	95	37	999	8163
Gallons fuel oil used						587					1438		2025
Gallons ortho-mix used	13191	10707	4820	5128	8047	13936	10186	8425	5010	4246	6446	1849	91991
Man days treating	606	526	400	222	447½	1013	578	572	185	278½	479	115	5422
Man Days - Camp & Misc.Supr.	555	271	214½	182	111	288½	168	112	81	66	286½	57	2392½
Total Project Man-Days	1609	953	939	566	764½	1594	901	803	316	391½	1007½	172	10013½
Horse Days	501	346	276	569	235	707	451	278	157	171	228	49	3768
Meals	4838	~~3023~~	2967	1783	~~1036~~ 160	3308 400	2197	~~2834~~ 400	852	1073	2513	393	~~24853~~ 26617
STATISTICAL DATA													
Acres spotted per man day	24.1	31.	20.9	18.2	26.8	22.1	22.3	12.8	23.9	13.1	18.0	-	24.3
Trees treated per man day (treating only)	10.3	9.9	6.9	11.0	8.8	8.5	10.5	12.1	14.0	8.7	8.3	8.7	9.6
Trees treated per man day (entire project)	3.9	5.3	3.0	4.3	5.2	5.4	6.8	8.6	8.2	6.2	4.0	5.8	5.2
Gallons ortho used per tree	2.1	2.1	1.7	2.0	2.0	1.6	1.7	1.2	1.9	1.7	1.6	1.8	1.8
Percent of time spotting	28	16	34	29	27	18	17	15	16	12	24		22
Percent of time treating	38	55	43	39	59	64	~~43~~	~~77~~	59	71	48	69	54
Percent of time camp &supr.	34	29	23	32	14	18	19	14	25	17	28	31	24
New Attacks per acre	.6	1.0	.4	.8	.4	1.3	1.8	4.5	1.5	3.9	.9	2.2	.97
Total Expenditures (Includes known & estimated obligations to 12/31/48													*198,337.73* $197,864.73
Cost per tree treated													$3.79

-25-

DATA ON CAMPS

	CAMP BUILDING		SPOTTING		TREATING		REMARKS
Camp	Start	Finish	Start	Finish	Start	Finish	
Alpine	4/26	5/1	5/3	6/7	5/7	6/14	Moved to Pine Cr.
Fall Cr.	Taken over from Caribou		7/6	7/17	6/29	7/17	
Corral Cr.	7/5	7/6	7/9	7/16	7/7	7/17	Moved from Mud Springs
Hawley	5/6	5/18	5/18	7/6	5/20	7/23	
Hinckley	5/22	5/30	5/31	7/13	6/2	7/13	
West Pine	6/10	6/11	6/1	6/25	6/2	7/14	Moved to Twin Cr. Spike Camp
Canyon Cr.	5/27	5/31	5/28	6/28	6/1	7/13	Moved personnel to Pine Creek
Mud Spgs.	5/12	5/19	5/15	7/3	5/20	7/3	Moved to Corral Creek
N. Pine Cr.	6/16	6/22	6/1	7/16	6/2	7/17	Worked in camp intermittently
Victor	4/22	5/1	5/24	7/2	5/31	7/19	
Pine Cr.	Used Victor Camp		5/3	7/20	5/4	7/20	
Spike Twin Cr.	7/15	7/16	-	-	7/15	7/20	
Spike Island Park	7/20	7/20	7/21	7/26	7/21	7/26	122 trees treated previously by Ranger force

INSECT EXPENDITURE STATEMENT to 7/31/48

Expenditures - FY 1948		856 funds	91,045.59
" " "		802 "	10,591.12
		Total	~~101,163.71~~ 101,636.71
FY 1948 Allotment (956)		109,704.41	
Expended to CTF. #376		75,831.88	75,831.88
	Balance	33,872.53	
OBLIGATIONS:			
Amount reported on July Obligation Report		6,787.50	
Central Purchase		6,214.16	
Equipment Section Job Card (mechanic)		500.00	
Melvin Salary to 12/31/48		2,067.48	
Estimated to Return Camps to R-1		2,800.00	
Replacements for Camps		500.00	
Lump Sum leave accumulations		2,000.00	
	Total	20,869.14	20,869.14
Unobligated		13,003.39	
	Total Expended		~~197,864.73~~ 198,337.73
Total meals shown on meal records		26,617	
Estimated for wages		87,500	
Estimated residual value of subsistence supplies, treating equipment and material.		8,000	

Recommendations

1. The Army weapons carriers which we obtained on loan for the insect control work have proven to be the most efficient and economical truck unit for this type of work. Every effort should be made to provide these units for any future insect control jobs.

2. The spraying-standing method of treatment has proven to be the most practical and economical and should be continued. Production was increased over 100% by using this method instead of the felling and sprinkling method employed a year ago.

3. We found that on the Targhee the small camps of not over 25 men were the most efficient and got the best production per man day. It appears that in a camp of this size all of the personnel are employed at or near full working capacity and you have a minimum of ineffective effort or personnel. Also, your chances of recruiting men capable of handling the smaller camps is many times greater than they are for recruitment of over-head personnel for the larger camps. It is suggested that work units be set up for this size camp on any of the future control jobs.

4. The Smith Little Giant Stirrup Pump was found to have several advantages over any of the other types of pumps used wherever mobility was a problem. Their use in the future is recommended.

5. When several camps are required for the job they should be tied together with radio or telephone communication so that daily production records can be transmitted to the project superintendent. This helps to develope good healthy competition between the camp units. It also keeps the daily production records constantly before the camp bosses and foremen so that corrective action can be taken immediately whenever production starts to lag or slow up.

6. It is important that qualified functional staff assistants be assigned full time to the important jobs of safety and training and to checking on the treating work. These positions are necessary if you desire to conduct an active safety program and do effective treating work. When these jobs are added to the project superintendent and subsequently to the camp bosses who already have a full time workload, they are bound to get slighted in favor of the urgent administrative problems that arise.

7. The value of the training received by young forest officers who are detailed to insect control projects is unquestioned. As these men make ideal overhead and are essential to a successful project, it is recommended that the Regional Forester continue to give this work sufficient priority to make this type of overhead personnel available.

8. The advantages of operating a four man spotting-treating combination crew has definitely proven itself after field trial. This size crew should be able to cover a 3 or 4 chain strip depending on the terrain and intensity of the infestation. Following are a few of the advantages of this type of control organization:

a. You only have to cover the area once; there is no backtracking over the area to treat the trees after they are spotted.

b. There is no need for making maps or laying semi-permanent guide lines.

c. All of the men in the crew are gainfully employed at all times. When the crew is moving ahead they are spotting after the trees are found the men are busy treating. By carrying two of the light Stirrup pumps with each crew, all four men could be efficiently used for treating when the larger groups are found.

d. In a four man crew the leader or strawboss is also a workman with a full time production job to do in addition to his direction work.

Following is a suggestive pattern for organizing a camp where this method is used: *Also forms developed and used in figuring work programs and dates for camp units and camp production records.*

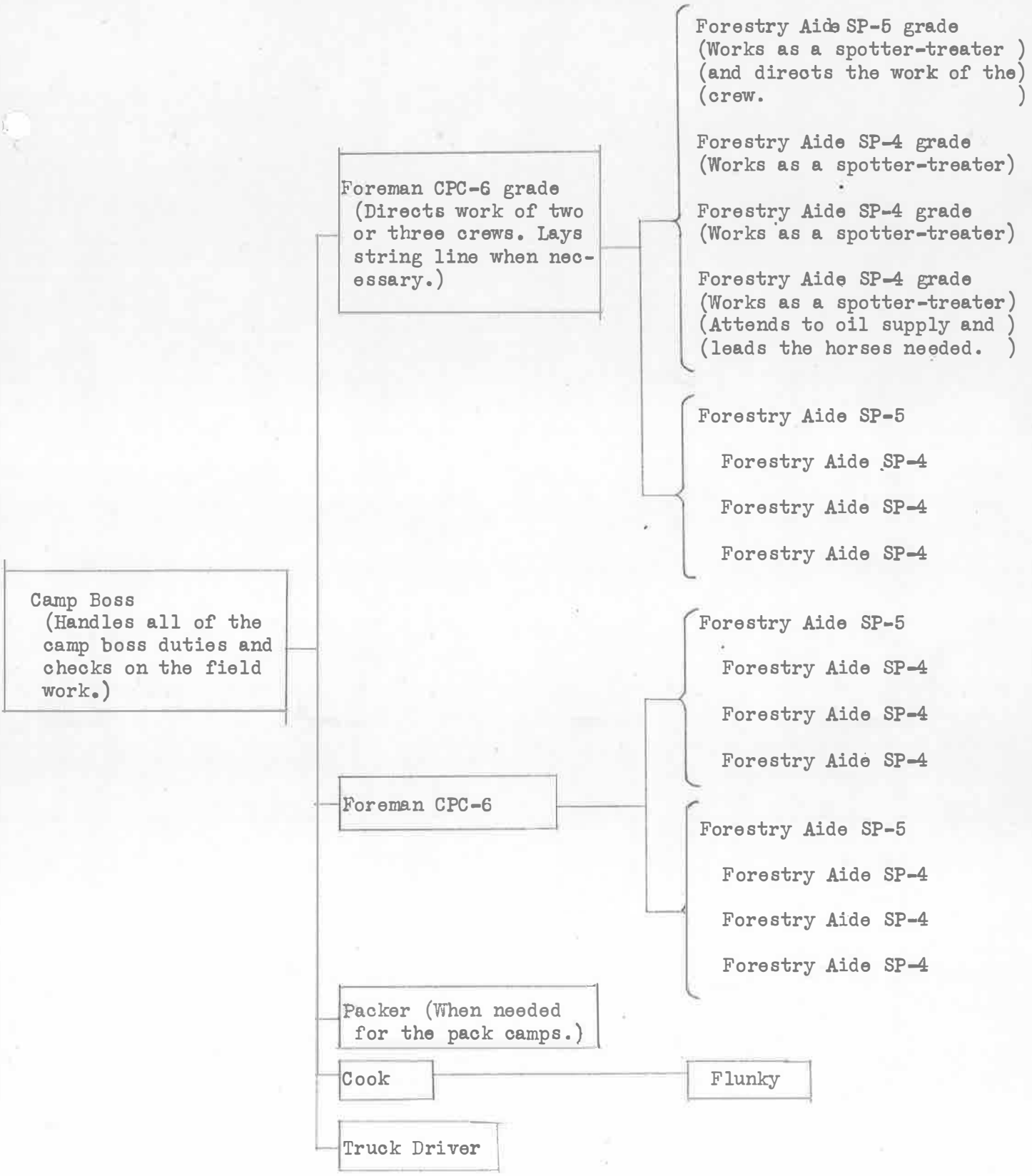
(See next page)

Respectfully submitted,

L G Woods

Project Superintendent

Organization Chart
25 Man Insect Control Camp


Camp Boss
(Handles all of the camp boss duties and checks on the field work.)
Foreman CPC-6 grade
(Directs work of two or three crews. Lays string line when necessary.)
Forestry Aide SP-5 grade
(Works as a spotter-treater)
(and directs the work of the)
(crew.)
Forestry Aide SP-4 grade
(Works as a spotter-treater)
Forestry Aide SP-4 grade
(Works as a spotter-treater)
Forestry Aide SP-4 grade
(Works as a spotter-treater)
(Attends to oil supply and)
(leads the horses needed.)
Forestry Aide SP-5
Forestry Aide SP-4
Forestry Aide SP-4
Forestry Aide SP-4
Foreman CPC-6
Forestry Aide SP-5
Forestry Aide SP-4
Forestry Aide SP-4
Forestry Aide SP-4
Forestry Aide SP-5
Forestry Aide SP-4
Forestry Aide SP-4
Forestry Aide SP-4
Packer (When needed for the pack camps.)
Cook
Flunky
Truck Driver

INSECT CONTROL

CAMP PRODUCTION RECORD

CAMP_____ DATE_____ INSPECTOR _____

SPOTTING

_____ Acres spotted to date

_____ Trees spotted to date

_____ New attacks per acre

_____ Total man days spotting

_____ Acres spotted per man day

Man days spotting time computed by formula

$$\frac{\text{Trees}}{100} + \frac{\text{Acres}}{20} = \text{Man Days.}\_\_\_\_\_$$

Comments:

TREATING

_____ Total trees treated to date

_____ Total man days, treating only

_____ Trees treated per man day

Comments:

TOTAL CAMP PRODUCTION

_____ Total trees treated to date

_____ Total man days, entire camp

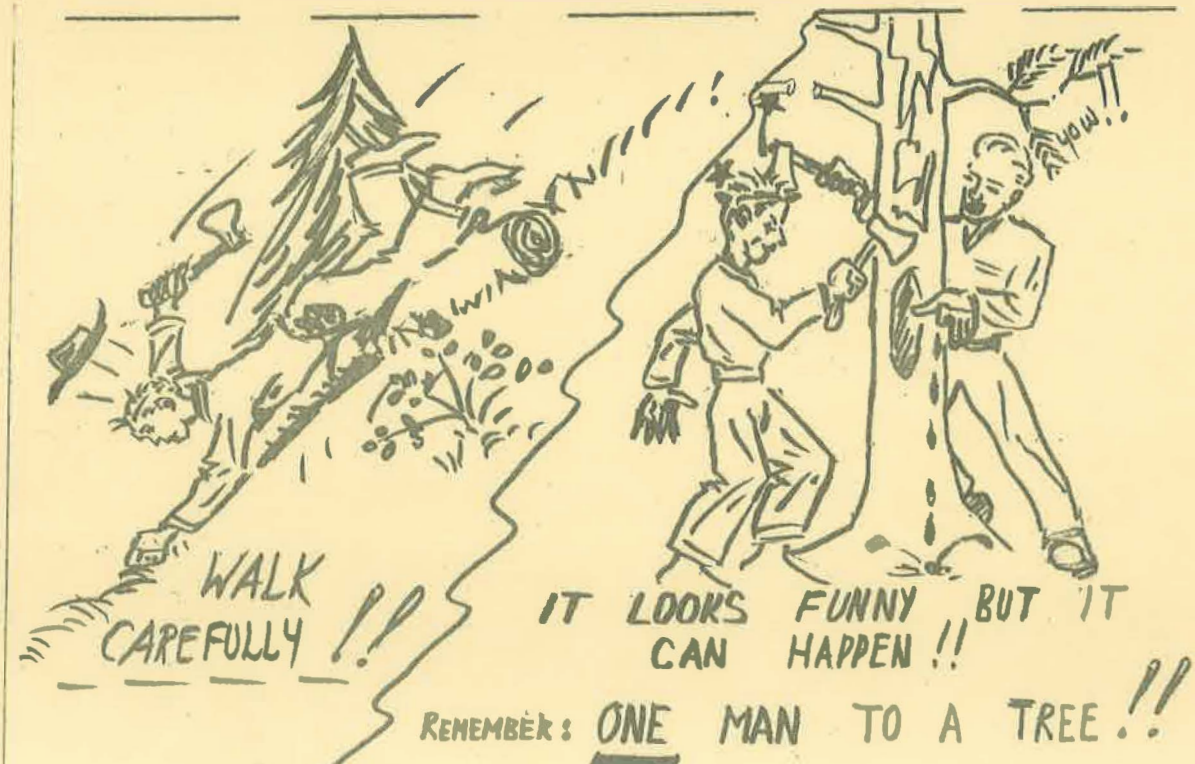
_____ Average number trees treated per man day

Comments:

SPOTTING

IS — AN — IMPORTANT — JOB — IN

BUG — CONTROL



REMEMBER: ONE MAN TO A TREE !!

BE EXTRA CAREFUL

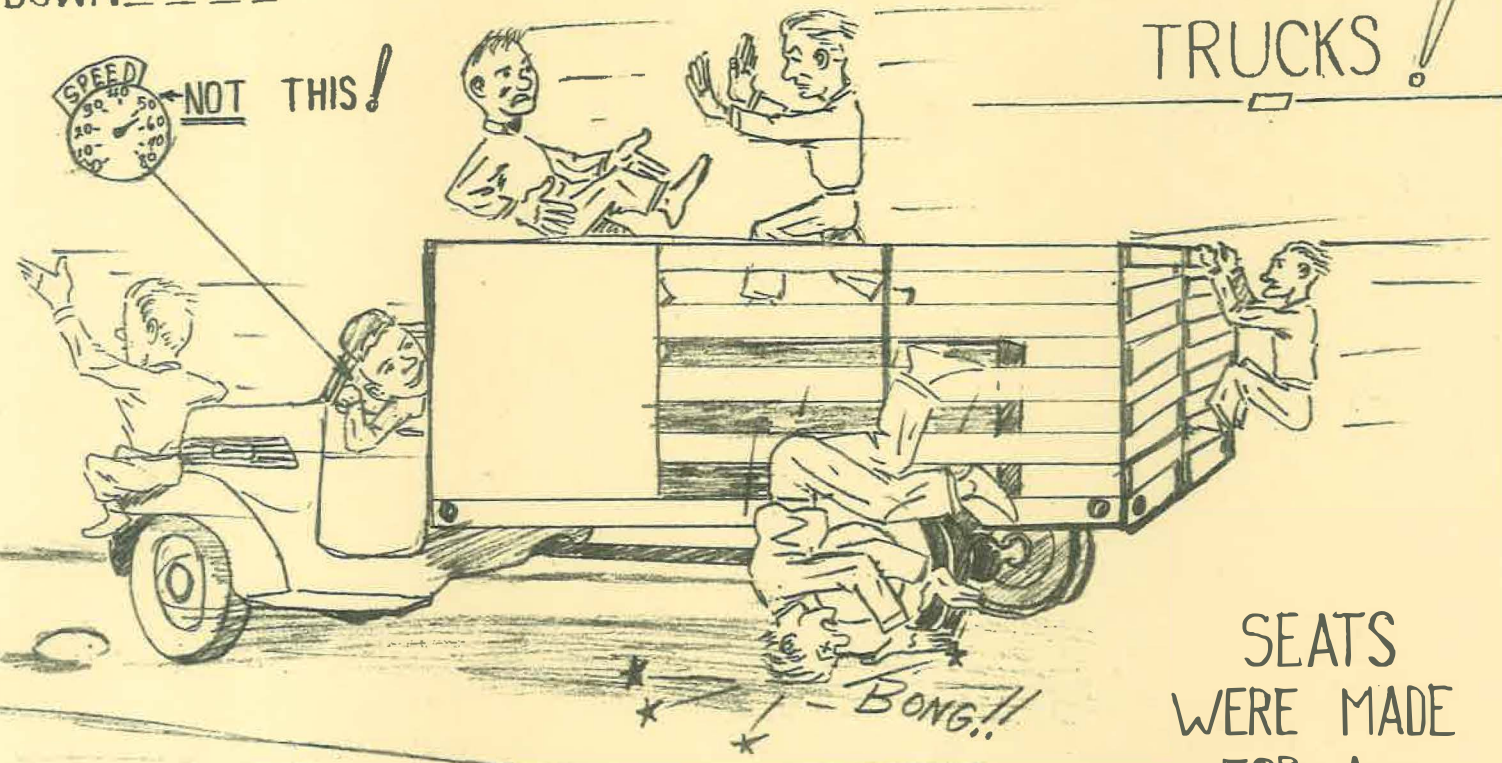
AT ALL TIMES

VICTOR-CAMP

BY- BILLY-BURGENER
SPOTTER

THERES A SAFETY SPEED LIMIT____LETS KEEP IT DOWN____

NO SCUFFLING IN TRUCKS!



SEATS WERE MADE FOR A- PURPOSE

VICTOR CAMP_

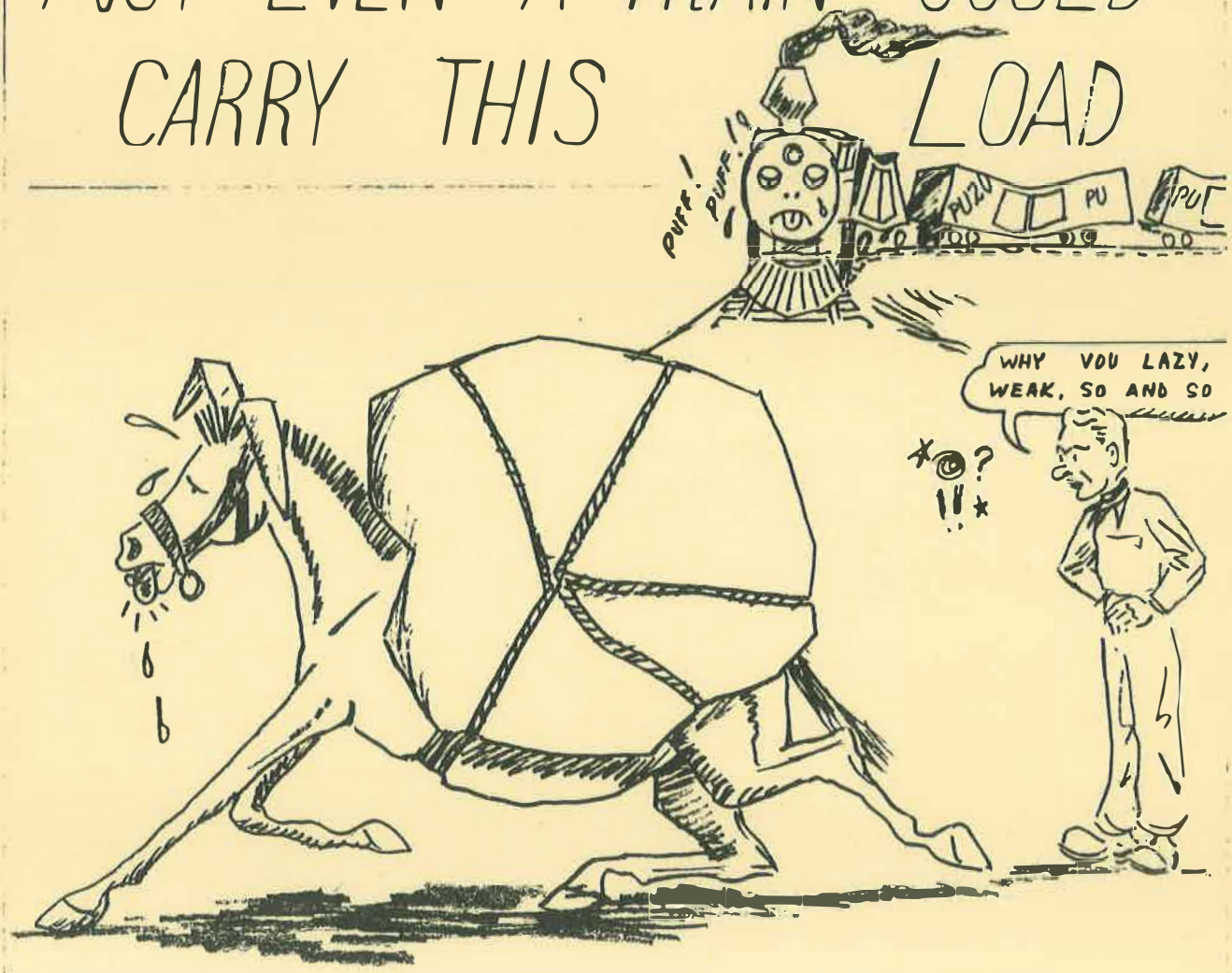
BY BILLY BURGENER_ SPOTTER_

IS THIS GOING TO BE YOU?
VICTOR CAMP
BY BILLY BURGENER
SPOTTER
IT PAYS
TO AVOID
ALL
ACCIDENTS
IT'S THE FOREST
THAT LOSES..... NOT YOU!!

SOMEBODY MAY GET HURT THIS WAY!
KEEP OUT OF THE WAY AND KEEP YOUR EYES ON YOUR JOB!
YOU DUMB
VICTOR CAMP
BILLY - BURGENER
SPOTTER

50

NOT EVEN A TRAIN COULD CARRY THIS LOAD



REMEMBER PACKERS: YOUR MULES AND HORSES CAN ONLY CARRY SO MUCH_____

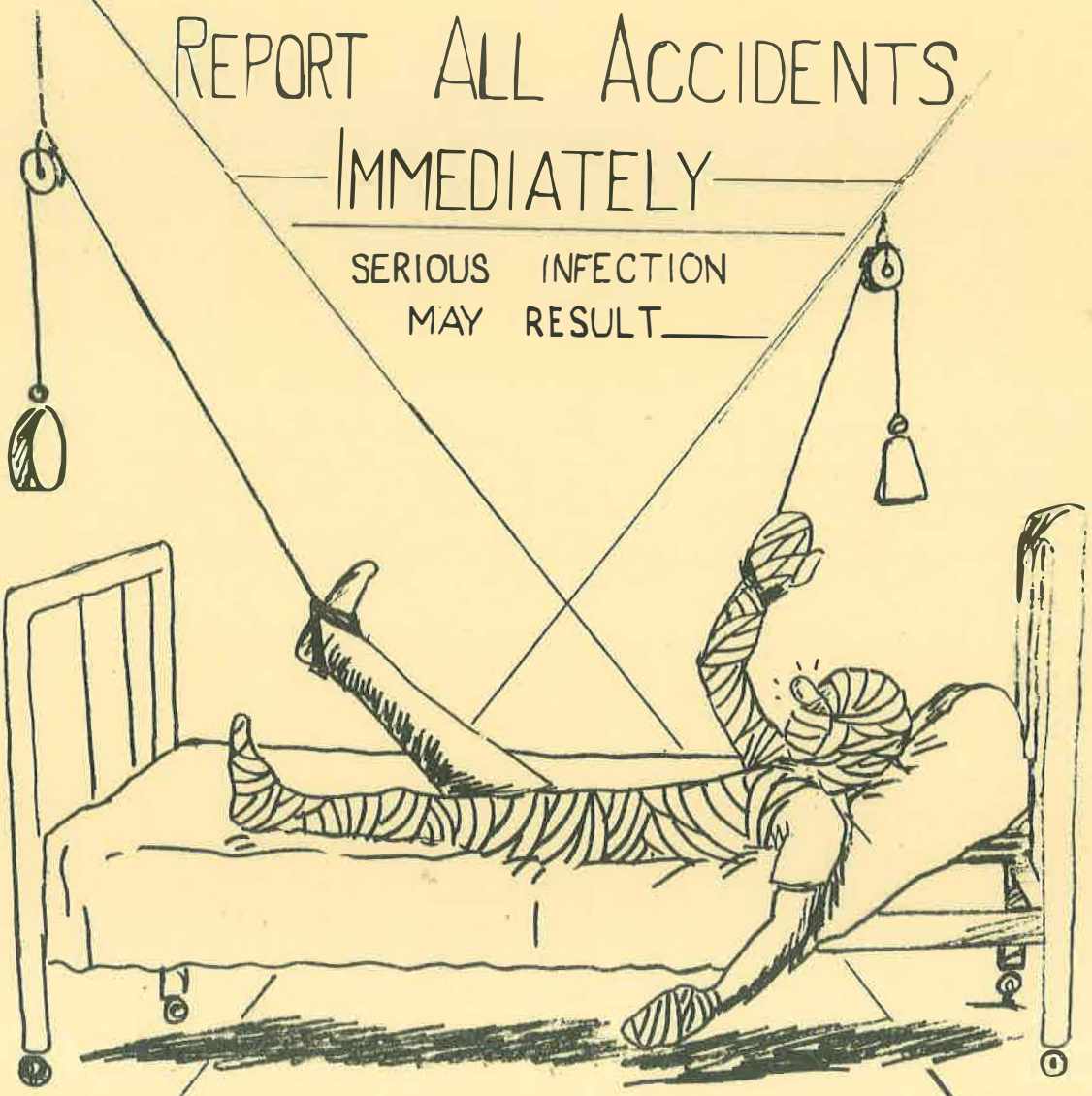
VICTOR CAMP

51

VICTOR CAMP By Billy Burgener
Spotter

REPORT ALL ACCIDENTS IMMEDIATELY

SERIOUS INFECTION MAY RESULT



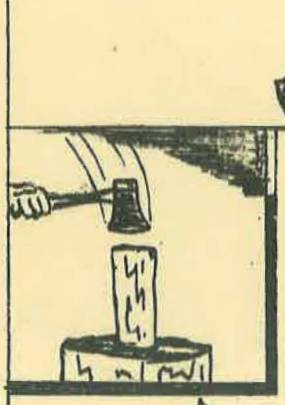
SAVE TIME AND MONEY FOR YOURSELF AS WELL AS THE FOREST SERVICE

LET'S NOT HAVE ANY ACCIDENTS TO START WITH

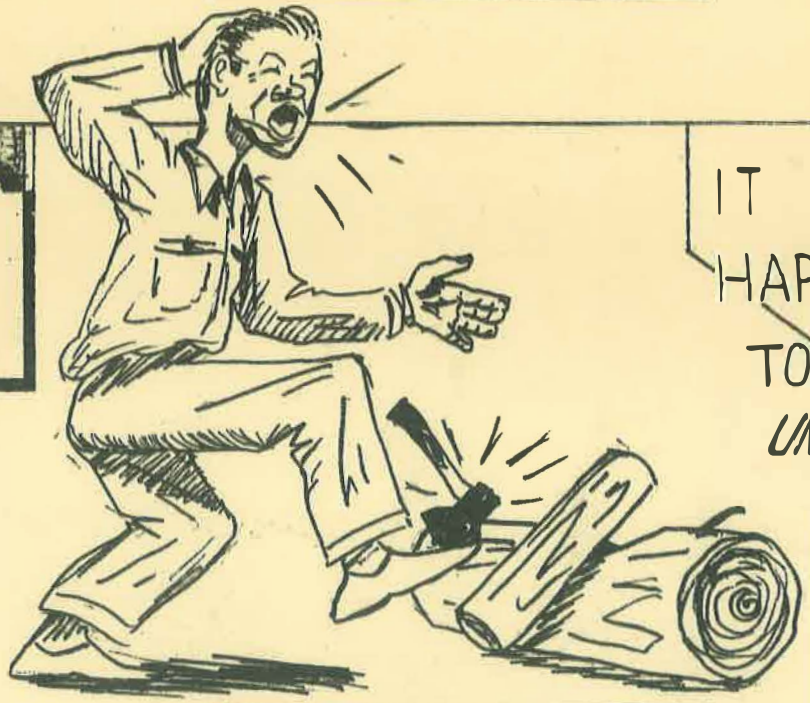
52

DON'T LET THIS HAPPEN IN OUR CAMP

DON'T LET AXE CARELESSNESS CAUSE ACCIDENTS AND HOLD UP OUR JOB



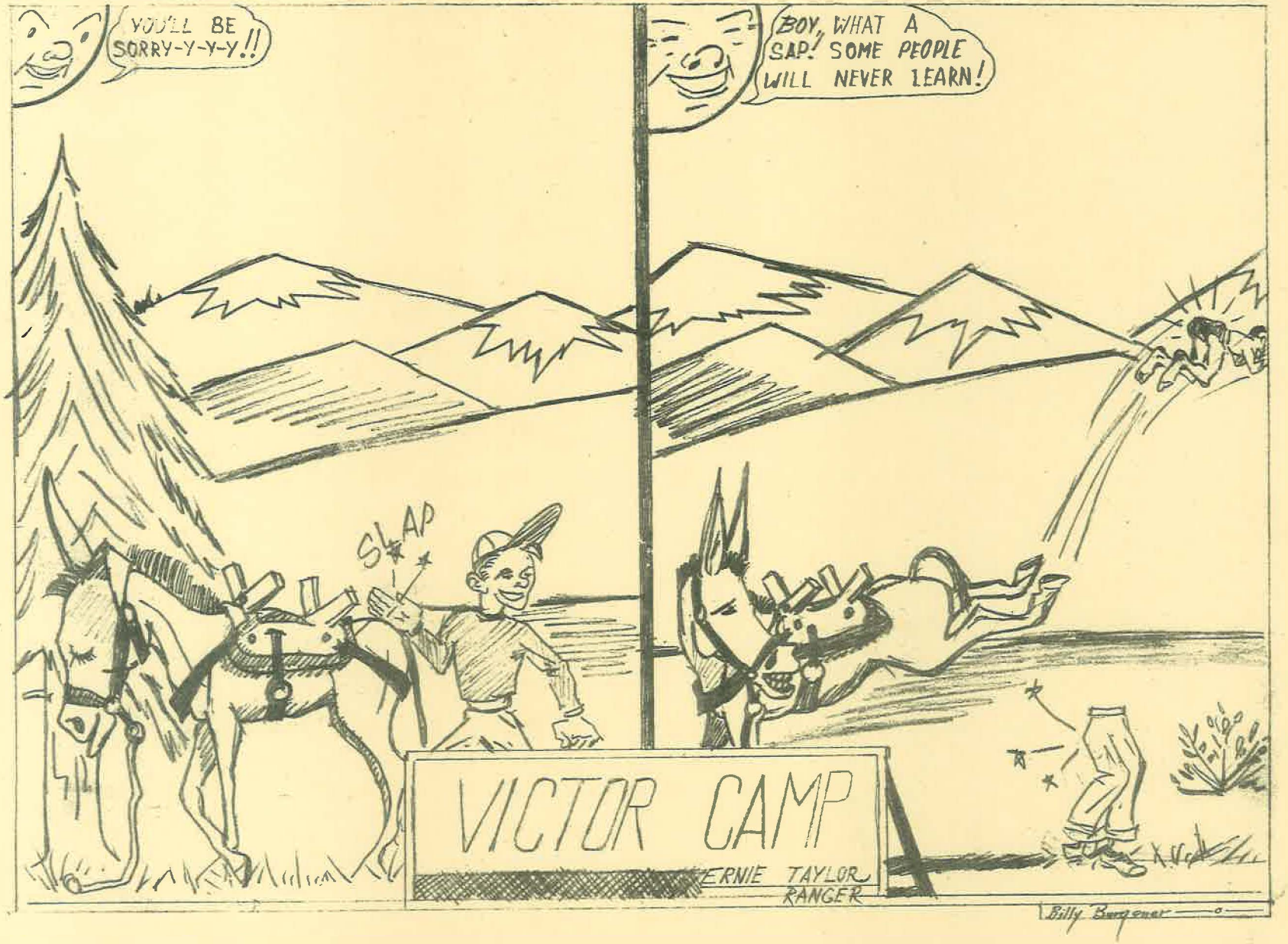
Like This ON ANOTHER BLOCK.....



IT CAN HAPPEN TO YOU! UNLESS:.....

VICTOR CAMP—

By Billy Burgener SPOTTER

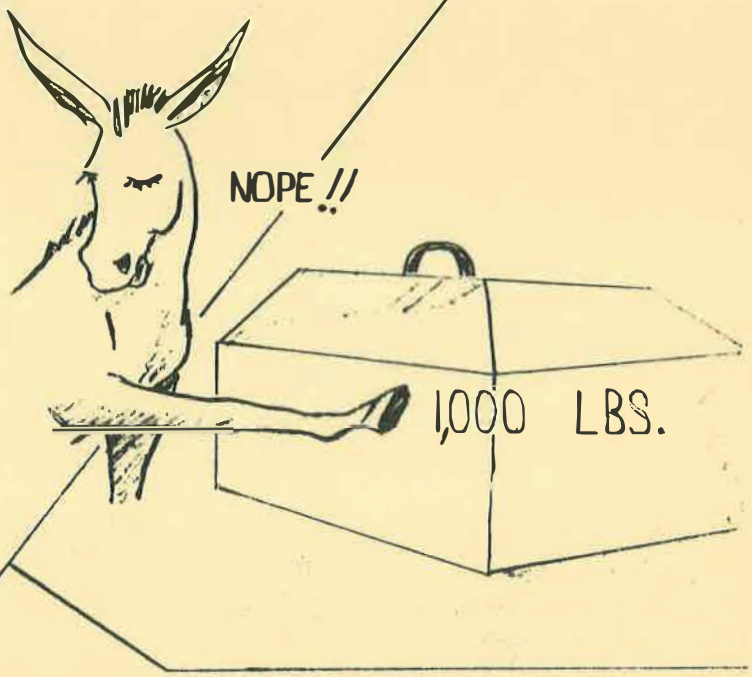

YODEL BE SORRY-Y-Y-Y!!
SLAP
BOY, WHAT A SAP! SOME PEOPLE WILL NEVER LEARN!
VICTOR CAMP
ERNIE TAYLOR
RANGER
Billy Bergener

DON'T TRY TO LIFT ANYTHING

A MULE WOULD SHUN

DON'T TRY TO LIFT A LOAD TO SHAME A MULE.....

CAUSE HE'LL JUST SAY, "YOU SILLY FOOL!"



KEEP YOUR BACK STRAIGHT AND LIFT BY STRAIGHTENING YOUR LEGS

VICTOR-CAMP

Billy Burgener

Spotter